| Index of Claims |  |
|-----------------|--|
|                 |  |

| A | p | ρl | i | ca | ıti | 0 | n | No |  |
|---|---|----|---|----|-----|---|---|----|--|

10/675,138

Examiner

Ivars C. Cintins

Applicant(s)

HARJULA ET AL

Art Unit

1724

✓ Rejected= Allowed

(Through numeral)
Cancelled

Restricted

Non-Elected

I Interference

A Appeal
O Objected

|            |  | L            | L   |          |         |              |           | J         |          | Į            |                | L |
|------------|--|--------------|---|----------|---------|--------------|-----------|-----------|----------|--------------|----------------|---|
| Cli        | aim  | Ţ            | _   |          | _       |              | Dat       | Α.        |          |              |                | _ |
|            | 1  | 十            | Τ.  | Т        | Т       | _            |           | T         | Т        | 7            | _              |   |
| Final      | Original   | 2/22/04      | 18  | ł        |         |              |           |           |          |              |                |   |
| i <u>Ē</u> | l Ë  | 122          | 12  | -        | ı       |              |           | 1         | ı        | İ            | - 1            |   |
| <u></u>    | ı  | Ľ            | 1   |          |         |              |           |           | 1        | ł            | ļ              |   |
|            | 1<br>2<br>3<br>4<br>5<br>6<br>7  | √            | 1   |          |         |              |           |           |          |              |                |   |
| ļ          | 2  | √            | √   | 1        | 4       |              |           | L         | $\perp$  |              |                |   |
| -          | 3  | 1            | √   | L        | 4       | 4            |           | ļ_        | 1        | 4            | $\perp$        |   |
| }          | 4  | <b> </b> √   | Ī√  | 1        | +       | 4            |           | L         | -        | 4            | 4              | _ |
|            | 6  | 1            |   | ╀╌       | +       | $\dashv$     |           | ⊢         | +        | -+           |                |   |
|            | 7  | 1            | ./  | -        | ╁       | -            | _         | H         | +        | +            | -              |   |
|            | 8  | 1            | \<br>\<br>\   | †-       | +       | $\dashv$     |           | $\vdash$  | +        | +            | +              | - |
|            | 9  | V            | V   | İΤ       | +       | 7            | _         |           | ╁        | +            | +              |   |
|            | 10   | V            | V   |          | †       | 7            |           | _         | +        | 十            | $\dashv$       |   |
|            | 11   | √            |   |          | I       |              |           |           | Ţ        | $\top$       |                | _ |
| <u> </u>   | 12   | ✓            | L.  | L        | $\perp$ | $\prod$      |           |           |          | I            |                |   |
|            | 8<br>9<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20 | V            | \<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\<br>\ | L        | 1       | 4            | _         | _         | Ĺ        |              | I              | _ |
| $\vdash$   | 14   | <b>√</b>     | √<br>_  | L        | 4       | 4            |           |           | ╀        | 4            | 4              |   |
|            | 16   | ٧<br>/       | √   | ┝        | +       | +            | 4         |           | ∤-       | -            | 4              |   |
| -          | 17   |              | . [   | -        | ╀       | +            | _         | _         | ╀        | +            | 4              | _ |
|            | 18   |              | \<br>\<br>\<br>\<br>\   | _        | +       | +            | $\dashv$  | _         | ╁        | +            | +              |   |
|            | 19   |              | V   |          | †       | ✝            | +         | _         | ╁        | +            | +              | - |
|            | 20   |              | <b>√</b>  |          | †       | 1            | 7         | _         | T        | $\dagger$    | $\dagger$      |   |
|            | 21<br>22<br>23   |              |   |          |         |              |           |           | 1        | T            | 7              | _ |
|            | 22   |              |   |          | L       |              | $\Box$    |           |          | I            | T              |   |
|            | 23   | _            | _   |          | L       | 4            | 4         |           | _        | 1            | 1              |   |
|            | 24   |              |   |          | 1       | +            | 4         |           | L        | 4            | $\downarrow$   |   |
|            | 26   | -            | -1  |          | ╀       | +            | +         |           | ├-       | +            | +              | _ |
|            | 27   | -+           | -   | _        | ┝       | +            | +         | _         | ╁╴       | ╁            | ╀              | _ |
|            | 24<br>25<br>26<br>27<br>28<br>29<br>30                                   | _            | -   | _        | f       | +            | +         |           | ┝        | ╁            | +              | _ |
|            | 29   | 十            | $\neg$  |          | †-      | $\dagger$    | ✝         | _         | $\vdash$ | 十            | +              | - |
|            | 30   |              | $\Box$  |          |         | T            | 1         |           |          | T            | 十              |   |
| - 1        | 31 L   | _            |   |          |         | L            |           |           |          | Ι            |                |   |
|            | 32<br>33   | 4            | _   |          | L       | L            | $\perp$   |           |          | L            | Г              | _ |
|            | 33   | -            | -   | _        | L       | 4            | 4         | _         |          | ļ_           | 1              |   |
|            | 34<br>35   | $\dashv$     | $\dashv$  |          | -       | +            | +         | 4         | _        | ╀            | +              | _ |
| $\dashv$   | 36   | +            | +   |          | -       | +            | +         | 4         |          | 1            | +              | _ |
|            | 37   | +            | +   | -        | -       | +            | +         | +         | _        | +            | +-             |   |
| T          | 38   | +            | +   | ٦        | -       | †-           | +         | -         |          | +-           | ✝              | Ī |
|            | 39   |              | ╛   |          |         | Γ            | $\perp$   | ┪         |          | T            | T              | i |
|            | 40   | $\perp$      | $\bot$  | $\Box$   | _       |              | Ι         |           |          |              | L              |   |
|            | 41   | $\downarrow$ | 4   | _        |         | L            | Ţ         | 1         |          | $oxed{\Box}$ |                | ] |
|            | 42   | - -          | +   | -        |         | ↓_           | +         | 4         |          | L            | 1              | ┙ |
|            | 43<br>44   | +            | +   | $\dashv$ |         | ┼            | +         | 4         | _        | -            | <u> </u>       | 4 |
|            | 15   | +            | +   | +        |         | $\vdash$     | +         | +         |          | $\vdash$     | <del> </del> - | 4 |
|            | 16   | +            | ╁   | +        |         | +-           | +-        | +         |          | -            | ⊢              | + |
|            | 17   | +            | +   | +        |         | <del> </del> | ╁         | +         | _        | -            | $\vdash$       | + |
| 4          | 18   | T            | 1   | 7        | _       | Г            | $\dagger$ | $\dagger$ |          | -            | H              | 1 |
|            | 19   | Ι            |   |          |         |              | Ī         | Ť         |          | _            |                | 1 |
| 5          | 50   |              | Ĺ   | $\prod$  |         |              |           | I         |          |              | ·              | 1 |

|          | Claim     |          |              | _ |           |         |          |          |           | Da        | te       | _            |          | _  | _  | _         |
|----------|-----------|----------|--------------|---|-----------|---------|----------|----------|-----------|-----------|----------|--------------|----------|----|----|-----------|
|          | Final     | Originat |              |   |           |         |          |          |           |           | Ī        |              |          |    |    | <br> <br> |
|          |           |          | $\bot$       | _ | L         | 4       | _        | 1        |           | L         | 4        |              |          | 1  |    | L         |
| ł        |           | 51<br>52 | +            |   |           | 4       |          | 1        | _         | L         | 4        |              |          | 1  |    | L         |
| ł        |           | 53       | +            | - |           | +       | _        | +        |           | ├         | +        | -            | _        | +  | _  | L         |
| ŀ        |           | 54       | ╁            | - |           | +       | _        | +        | _         | ⊢         | +        | ┥            | _        | ╀  | -  | -         |
| ł        |           | 55       | $^{+}$       | 7 | _         | +       | -        | t        | _         | -         | +        | +            |          | H  | -  | H         |
|          |           | 56       | $\dagger$    | 1 | _         | †       | _        | t        | _         | -         | +        | ┪            | _        | t  | _  | _         |
| Ī        |           | 57       | T            | 7 |           | T       |          | t        | -         | -         | †-       | ┪            |          | †  | ┪  | _         |
|          |           | 58       | Ι            |   |           | Ţ       |          | T        |           |           | 1        | 1            |          | T  | T  |           |
| -        |           | 59       | L            |   |           | $\perp$ |          | Ĺ        |           |           |          |              |          | Γ  |    |           |
| ŀ        |           | 60       | 1            | 4 |           | 1       |          | Ļ        |           |           | Ļ        | 1            |          | L  |    |           |
| ŀ        |           | 61       | ╀            | 4 |           | 4       | _        | 1        |           |           | ╀        | 4            |          | L  | 4  |           |
| ╮├       |           | 62<br>63 | +-           | + | _         | +       | _        | Ł        | 4         | _         | ╄        | +            |          | L  | 4  |           |
| H        |           | 64       | ╁            | + | _         | ╀       |          | +-       | -         |           | ╀        | +            |          | L  | 4  |           |
| ŀ        |           | 65       | $\vdash$     | + |           | +       |          | $\vdash$ | +         |           | +        | +            |          | -  | +  | _         |
| t        |           | 66       | 1            | t |           | t       | _        | r        | 1         | _         | ╁╴       | +            |          | H  | +  | _         |
| r        |           | 67       | 1            | † |           | †       | _        | T        | 7         | _         | f        | †            | _        | r  | †  | _         |
|          |           | 68<br>69 |              | Ť |           | T       |          | 1        | 7         |           | T        | †            | _        | Т  | †  | _         |
|          |           | 69       |              |   |           |         |          | Г        | 7         |           |          | 1            |          | _  | †  | _         |
| -        |           | 70       |              |   |           | L       |          | L        | $\rfloor$ |           |          | I            |          |    | 1  | _         |
| L        |           | 71       | L            | 1 |           | L       |          | Ŀ        | 1         |           | L        | 1            |          |    | I  |           |
| -        |           | 72       | _            | 1 |           | L       |          | _        | 4         |           | L        | 1            | _        | _  | 1  |           |
| ŀ        |           | 73<br>74 |              | + |           | ┞       | 4        |          | +         | _         | _        | $\downarrow$ |          | _  | ļ  |           |
| $\vdash$ | _         | 75       | <del> </del> | t |           | ┞       | $\dashv$ | _        | +         | _         | ┞        | ╀            | $\dashv$ | _  | +  | _         |
| H        | _         | 76       | -            | t | _         | H       | -        |          | +         | -         | <u> </u> | +            | $\dashv$ | -  | +  |           |
| r        |           | 76<br>77 | _            | t | _         | H       | 7        | _        | t         | -         | -        | t            | 7        | _  | ✝  | —         |
|          |           | 78       |              | T |           |         | _        |          | T         | _         | Г        | t            | 7        | _  | t  | _         |
| L        |           | 79       |              | L |           |         | 1        |          | 1         |           |          | T            | 7        |    | T  |           |
| L        |           | 80       |              | L |           |         |          |          | I         |           |          |              | Ī        |    | T  | _         |
| $\vdash$ | _         | 81       |              | L |           | _       | 4        |          |           |           |          | L            |          |    | L  |           |
| H        | $\dashv$  | 82<br>83 |              | - | 4         | _       | 4        |          | 1         | _         |          | Ļ            | 4        |    | 1  |           |
| $\vdash$ |           | 84       |              | H | $\dashv$  |         | +        |          | +         | -         |          | ŀ            | +        |    | Ł  | _         |
| -        | 一         | 84<br>85 | _            | H | $\dashv$  | _       | +        | _        | ╁         | $\dashv$  |          | H            | ╬        | _  | ╀  | 4         |
| r        | $\exists$ | 86       | _            | ┝ | $\dashv$  | _       | +        |          | t         | -+        |          | ┝            | +        |    | }- | $\dashv$  |
|          |           | 87       |              | ٢ | Ť         |         | †        |          | 1         | 7         |          |              | 十        | _  | ┢  | 1         |
|          |           | 88       |              |   | J         | _       | I        |          | İ         | 1         |          | T            | †        |    | T  | ㅓ         |
| L        | _         | 89       |              |   | 1         |         | I        |          | L         | $\Box$    |          |              | I        |    | L  |           |
| L        |           | 90       | _            |   | 4         |         | 1        |          | L         | 1         |          | L            | $\perp$  | _  |    |           |
| -        | 4         | 91       | 4            |   | +         |         | 4        |          | L         | 4         |          | L            | 1        |    | L  | ↲         |
| -        | $\dashv$  | 92<br>93 | $\dashv$     | _ | +         |         | +        |          | L         | +         | _        | <u> </u>     | 1        | _  | L  | 4         |
| $\vdash$ | $\dashv$  | 94       | -            | - | +         | _       | +        | _        | -         | +         | _        |              | +        | _  | H  | 4         |
| 一        | 一         | 95       | $\dashv$     |   | +         |         | +        | -        | ۲         | +         | -        | _            | +        | -  | :  | $\dashv$  |
| <u> </u> | $\dashv$  | 96       | 7            |   | $\dagger$ |         | t        | ۲        |           | +         | $\dashv$ |              | ╁        | -  | _  | 4         |
|          |           | 97       | 1            | _ | Ť         | _       | t        | ٦        | -         | $\dagger$ | ᅥ        | -            | +        | -  | _  | 1         |
|          |           | 98       | J            | _ | Ţ         | _       | T        | ٦        |           | †         |          |              | †        | 7  | _  | 1         |
| L        | $\bot$    | 99       | $\Box$       |   | I         | _       | L        |          | _         | I         |          | _            | İ        | _† | _  | 1         |
|          |           | 100      | $\perp$      |   | L         | _       | L        |          |           |           | $\Box$   |              | L        |    |    |           |

| Г        | Claim                    | Т  |          |   |   |     |         | _ | D   | at        | e       |              |              | -        |           | - |
|----------|--------------------------|--|----------|---|---|-----|---------|---|-----|-----------|---------|--------------|--------------|----------|-----------|---|
|          |                          | $\forall$                                    | _        | Ī |   | Τ   | 7       | _ | Ť   |           | Ť       | Т            |              | T        | Т         | _ |
| I G      | Original                 |  |          | l |   | ł   | -       |   | ļ   |           |         |              |              | ļ        |           |   |
| 🗓        | :   문                    | <b>'</b>                                     |          | l |   | ļ   | -       |   | 1   |           | ľ       | 1            |              | l        |           |   |
|          |                          | - 1  |          |   |   | l   | ı       |   | İ   |           |         | Ĭ            |              | l        | 1         |   |
|          | 10                       | 1  |          | T |   | T   | 7       | _ | †   |           | T       | $^{\dagger}$ | _            | <u> </u> | +         | 1 |
| Г        | 102                      | 2  |          | T | _ | T   | ╗       | _ | †   | _         | T       | †            |              | -        | +-        | ┨ |
|          | 103                      | 3  |          | r | _ | T   | 7       |   | Ť   | _         |         | 1            |              |          | ✝         | 1 |
|          | 104                      | 1  |          |   | - | Γ   | 1       |   | Ť   | _         | 1-      | T            | _            |          | $\top$    | 1 |
|          | 105                      | 5  |          | Г |   |     |         | _ | T   |           | T       | +            |              | Г        | 十         | 1 |
|          | 106                      | 3  |          |   |   |     | 7       |   | 1   |           | Г       | T            |              |          | t         | 1 |
|          | 107                      | <u>'</u> [                                   |          |   |   |     | T       |   | T   | _         |         | Ť            |              |          |           | 1 |
| Ŀ        | 108                      | 3  |          |   |   |     |         |   | Ţ   |           | Г       | T            |              |          |           | 1 |
|          | 109                      | 丄  |          |   |   |     |         |   |     |           |         | T            |              | _        |           | 1 |
| <u> </u> | 110                      | ) [  | ┙        |   |   |     |         |   |     |           |         | T            | 7            |          |           | 1 |
|          | 111                      | - 1  | ┙        |   |   |     |         |   |     |           |         | Ι            |              | _        |           | 1 |
|          | 112                      | <u>:                                    </u> | _        | _ |   |     | 1       | _ |     |           |         | Ţ            |              |          |           | 7 |
|          | 113                      | Щ  | $\perp$  |   |   |     | 1       |   | L   |           |         | Γ            |              |          |           | 1 |
|          | 114                      | 4  | _        | _ | _ |     | $\perp$ |   | L   |           |         | L            | $\exists$    |          |           | Ī |
|          | 112<br>113<br>114<br>115 | 4  | 4        |   | 1 | _   | 1       |   | L   | _         |         | L            |              |          |           | ] |
|          | 116                      |  | 4        |   |   | _   | _       |   |     |           |         |              |              |          |           | ] |
|          | 117                      | $\perp$                                      | 4        |   | _ |     | $\perp$ |   | L   |           |         | L            |              |          |           |   |
|          | 118                      | $\perp$                                      | 4        |   | 1 |     | 1.      |   |     | _         |         | L            |              |          |           |   |
|          | 119                      | 1  | 4        | _ | 4 | _   | 1       |   | L   | 4         |         | L            | ⇃            |          |           | ] |
|          | 120<br>121               | +-   | 4        |   | 4 | _   | ╀       | _ | L   | 4         |         | L            | 4            |          |           |   |
|          | 121                      | +  | 4        | _ | 4 |     | - -     |   | _   | 4         |         | L            | 4            |          |           | ĺ |
|          | 122<br>123               | +-   | +        | _ | 4 | _   | ╀       | _ | _   | 4         | _       | L            | 4            |          | Щ         |   |
| _        | 124                      | +-   | +        | _ | + | _   | ╀       | _ | -   | +         |         | L            | +            | 4        |           |   |
|          | 125                      | ╁  | +        | - | + | _   | ╁       | - | _   | +         |         | H            | +            | 4        |           |   |
|          | 125<br>126               | ╁  | +        |   | + |     | ╁       | - |     | +         | -       | -            | +            |          |           |   |
|          | 127                      | H  | +        | _ | † | -   | ┢       | 7 | -   | +         | _       | ⊢            | +            | +        | 1         |   |
|          | 128                      | 1  | Ť        | _ | t | _   | †-      |   | _   | $\dagger$ | _       | H            | +            | +        | ∸┤        |   |
|          | 128<br>129               | T  | Ť        | _ | t |     | t       | ┪ |     | +         | _       | -            | +            | ┪        | ᅱ         |   |
|          | 130                      |  | 1        |   | t | _   | T       | 7 | _   | +         |         | _            | †-           | 7        | -         |   |
|          | 131                      |  | T        |   | Ť | _   | T       | 7 |     | †         | $\neg$  | _            | $^{\dagger}$ | 7        | $\dashv$  |   |
|          | 132                      | П  | T        |   | T | _   | T       | 7 |     | T         | 7       |              | t            | 1        | ┪         |   |
|          | 133                      | Γ  | Τ        |   | T |     | Ī       | 7 |     | T         |         | _            | 1            | T        | $\exists$ |   |
|          | 134                      |  | Τ        |   |   |     | Γ       | 7 |     | T         | _       |              | T            | 7        |           |   |
|          | 135                      | L  | I        |   | Γ |     |         |   |     | Ţ         | ٦       | -            | T            | 7        | ヿ         |   |
|          | 136                      | L.   | L        |   | L |     |         | Ι |     |           |         |              | 1            | 1        | 7         |   |
|          | 137                      | L.   | L        |   | L |     |         | 1 |     |           | $\Box$  |              | Γ            |          |           |   |
|          | 138                      | _  | L        | _ | L |     | _       | 1 |     | L         |         |              | L            | I        |           |   |
|          | 139                      | _  | L        |   | L |     |         | 1 |     |           | $\perp$ | _            | L            |          |           |   |
|          | 140                      | <u></u>                                      | L        |   | L | _   |         | 1 |     | Ļ         | _       |              | L            |          | ╝         |   |
|          | 141                      | _  | Ļ        |   | L | _   | _       | 1 | _   | L         | 4       | _            | L            | $\perp$  | $\perp$   |   |
|          | 142                      |  | -        | _ | L |     |         | 1 |     | L         | 4       | _            | L            | 1        | _         |   |
|          | 143<br>144               |  | 1        | 4 | L | 4   |         | 1 | _   | $\vdash$  | 4       |              | _            | 4        | $\dashv$  |   |
|          | 144                      |  | -        | 4 | _ | 4   |         | + | _   | L         | +       |              | L            | $\perp$  | _         |   |
|          | 145                      |  | -        | 4 | _ | 4   | _       | + |     | $\vdash$  | 4       | _            | _            | 1        | _         |   |
| _        | 146                      |  | -        | 4 | _ | +   |         | + | _   | L         | 1       | _            | L            | +        | $\perp$   |   |
|          | 147                      | _  | <u> </u> | 4 | _ | +   | _       | + | _   | -         | +       | -4           | L            | +        | 4         |   |
|          | 149                      | -  | H        | + | _ | +   |         | H |     | }         | -       | -            | _            | +        | 4         |   |
|          | 150                      |  |          | + | _ | +   | _       | t | -   | $\vdash$  | +       | -            | L            | +        | 4         |   |
|          |                          |  |          | _ |   | - 1 |         |   | - 1 | 1         | - 1     |              |              | - 1      | - 1       |   |